

Work Order ID 61570

Monday, August 30, 2010 11:24:50 AM



Page 1

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 8/30/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan: *[Signature]*Date: *10-8-30*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 005

*S10101/23**HJ for CL 10-9-21*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110



Skidtubes

Skidtubes

0.00

Skidtubes

Memo

0.00

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)
ONLY DRILL ONE SIDE OF FWD SADDLE HOLES USING DT81507- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Clecko DT9642 and drill fwd saddle holes on second side, ensure proper positioning.

9-Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

10-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to

10-9-1

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Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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0.297".

11-Open up holes of Detail A to 0.297" (total of 2 holes per side)

12-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004A/R Aluminum Rod batch: ☐

13-Grind welds flush as per Dwg D2750

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

> DP 10-9-1

DP 10-9-2

1009-03

1009-03

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Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140



HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

10-9-7

Hand Finishing

Memo

0.00

150



QC

QC3- Inspect Part Finish

0.00

x1 0 BE 10-9-7

Quality Control

Memo

0.00

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160



Skidtubes

Skidtubes

Skidtubes

Memo

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐ Sikaflex-291 batch: M115114 ☐ ☐ ☐
exp. date: 11-1-30

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9)

A/R ☐ Aluminum Rod batch: M114877 BE 10-9-13

9- At section AP-AP drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

11-Spot face ground handling holes section (total of 4 places per side) as per

10-9-7

BE 10-9-13
10/09/14
BE 10/09/14

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

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dwg D2750

12-Deburr holes

BE 10/09/14

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

S 10/09/14

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S 10/09/14

(A)

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo ✓ Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00 0.00	=> M	10/09/15		1	Ø		
200  Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M114841 Memo START TIME: 11:35AM OVEN TEMPERATURE: 320°F FINISH TIME: 12:05PM	0.00 0.00	=> M	10/09/15		1	Ø		
210  QC Quality Control	QC3- Inspect Part Finish Memo Inspect for foreign object per QSI 024	0.00 0.00							M 10 09 20 ①

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Reference:						
				Cust Item ID:		
				Customer:		

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 HandFinish Hand Finishing	HandFinishing Memo ✓ Install inserts as per dwg D2750	0.00 0.00	⇒ JH	10/09/20		1	0		
230 HandFinish Hand Finishing	HandFinishing Memo ✓ Inspect for Foreign Objects ✓ 2-Spray inside of tube with "LPS-3" batch: <u>N/A</u> 3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: <u>M115114</u> EXP DATE: <u>11101</u> 4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube A/R 55-o-ring lube batch: <u>M1114189</u> 5-Coat all exposed fasteners with "LPS Procyon" batch: <u>M1114596</u>	0.00 0.00	⇒ JH	10/09/20		1	0		

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
250 Packaging Packaging	Pick Kit Memo	0.00 0.00							
260 QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00							

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Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270  Packaging	Packaging <i>Loc 70</i> Memo Package as per PPP D350-636-012	0.00 <i>Reut</i> 0.00							<i>Cuppr @</i>
280  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							<i>10/09/27</i> <i>MF</i> <i>10-9-27</i>

B61570

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Parent Item: D350-636-012

Parent Item Name: Skidtube RH



Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ
 IPP Rev: J 06-03-29 As per Rev D EC
 IPP Rev: K 06-07-13 As per dsi9343 EC
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC
 IPP Rev: M 08-04-22 update steps 4,13 DD verified by: EC
 IPP Rev: N 08-09-23 revF as per dwg DD verified by: ec IPP Rev: O
 10.06.22 revise seq110 DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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ALS4-1032-225		Purchased	No			220	Each	5,418.000	38	38			
Insert													

Location	Loc Qty	Loc Code
PK011	5418	
110768	5418	

AN3C5A		Purchased	No			230	Each	1,072.000	34	34			
Bolt													

Location	Loc Qty	Loc Code
ST350	1062	
114330	11	
115015	251	
115108	300	
115316	300	
115371	100	
115422	100	
ST351	10	
113121	10	

38
 10/09/20
 x38
 34
 10/09/20
 x34

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Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00



Required Qty: 1.00

AN3C6A	Purchased	No	230	Each	353.0000	4	4
							<u>10/09/20</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
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ST351	353	
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<u>111982</u>	353	
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AN6C44A	Purchased	No	230	Each	129.0000	4	4
							<u>10/09/20</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
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FG	2	
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103964	2	
--------	---	--



ST344	127	
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111649	2	
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114653	1	
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114941	75	
--------	----	--

<u>115030</u>	49	
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AN8C35A	Purchased	No	230	Each	41.0000	1	1
							<u>10/09/20</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
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FP	1	
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110847	1	
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ST346	40	
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<u>114442</u>	15	
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115188	25	
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Shop Packet Print

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Required Qty: 1.00

AN960C10L NAS1149C0332R Purchased No

230 Each 155.0000 38 38



washer



10/09/20

Location

Loc Qty

Loc Code

ST245

155

1115000

x38

107534

29

109545

54

111548

72

AN960C816L Purchased No

230 Each 0.0000 1 1



WASHER

D2745 X NAS1149C08332R Manufactured No

BM114915

230 Each 173.0000 8 8



Bushing



10/09/20

Location

Loc Qty

Loc Code

ST023

173

52311

5

59112

68

61203

100

y8

D3488-042 Manufactured No

230 Each 13.0000 1 1



Blade Fitting Assembly, RH



10/09/20

Location

Loc Qty

Loc Code

FP008

13

53918

1

59643

12

yl

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Start Date: 8/30/2010



Required Date: 9/6/2010

Start Qty: 1.00



Required Qty: 1.00

D3492-041 Manufactured No 230 Each 57.0000 8 8

 Plug Assembly  yl 10/09/20



Location	Loc Qty	Loc Code
FP013	57	B61649
59114	1	
61311	56	

D3492-043 Manufactured No 230 Each 23.0000 8 8

 Plug Assembly  yl 10/09/20

Location	Loc Qty	Loc Code
FP	2	B61503
54682	2	
FP013	21	
59117	1	
59190	4	
61207	16	

D3535-25 Manufactured No 230 Each 10.0000 1 1

 Wearshoe  yl 10/09/20

Location	Loc Qty	Loc Code
FP18	10	
59623	10	

D3536-25 Manufactured No 230 Each 11.0000 1 1

 Gasket  yl 10/09/20

Location	Loc Qty	Loc Code
FP12	11	
59625	11	

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Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 5

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

230

Each

8.0000

3

3



Wearpad



HL 10/09/20

Location

Loc Qty

Loc Code

FP

1

B61640

X3

55465

1

FP017

48

FP17

7

57713

3

60491

4

D3631-1

Manufactured No

230

Each

475.0000

8

8



Washer



HL 10/09/20

Location

Loc Qty

Loc Code

ST072

201

60755

201

X8

ST076

274

52693

206

54388

68

D3672-1

Manufactured No

230

Each

921.0000

4

4



Phenolic Washer



HL 10/09/20

Location

Loc Qty

Loc Code

ST077

921

42329

150

52505

771

Y4

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Page 5

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Monday, August 30, 2010 11:24:55 AM

Page 6

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3791-1 Manufactured No

230 Each

9.0000

1

1



Wearplate



10/09/20

Location

Loc Qty

Loc Code

FP17

9

B 58573

xi

58573

8

59626

1

D3793-1 Manufactured No

230 Each

15.0000

1

1



Wearshoe



10/09/20

Location

Loc Qty

Loc Code

FP18

15

59151

1

59630

2

61244

12

vi

D3793-3 Manufactured No

230 Each

14.0000

1

1



Wearshoe



10/09/20

Location

Loc Qty

Loc Code

FP18

13

59631

1

61258

12

vi

FP19

1

57947

1

D3794-1 Manufactured No

230 Each

7.0000

1

1



Gasket



10/09/20

Location

Loc Qty

Loc Code

FP010

7

57942

7

xi

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Page 6

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Monday, August 30, 2010 11:24:55 AM

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3794-3 Manufactured No 230 Each 12.0000
Gasket

1 1
10/09/20

Location	Loc Qty	Loc Code
FP10	1	
60826	1	
FP18	11	
56066	10	
59153	1	

MS21043-6 Purchased No 230 Each 678.0000
NUT

4 4
10/09/20

Location	Loc Qty	Loc Code
ST301	678	
112314	678	

MS21083C8 Purchased No 230 Each 30.0000
NUT

1 1
10/09/20

Location	Loc Qty	Loc Code
ST303	30	
113845	7	
114934	23	

NAS1611-010 Purchased No 230 Each 259.0000
O-RING

8 8
10/09/20

Location	Loc Qty	Loc Code
FP	259	
110715	100	
110915	159	

PTO =>

W/O: 61570		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/09/20	230	Replacc NAS1611-010 "O" Rings for D2594-3 / 59358 "O" Ring	el	10/09/20	X8		5 10/09/20

Part No: D350-636-012 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Monday, August 30, 2010 11:24:55 AM

Page 8

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased

No

230

Each

103.0000

8

8



O-RING



10/09/20

Location

Loc Qty

Loc Code

FP

103

114451

3

115460

100

X8

AN8C21A

Purchased

No

250

Each

43.0000

2

2



BOLT



10/9/22 sf

Location

Loc Qty

Loc Code

ST345

43

113558

3

114653

40

2

AN960C816L

Purchased

No

250

Each

0.0000

1

2



WASHER



11/4/21 10/9/22 sf

D2741

Manufactured

No

250

Each

14.0000

1

1



Blade, 350 Skidtube



10/9/22 sf

Location

Loc Qty

Loc Code

ST466

14

57949

14

250

Each

34.0000

2

2

D3493-1

Manufactured

No



Washer



10/9/22 sf

Location

Loc Qty

Loc Code

ST065

34

59127

4

60873

30

2

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Page 8

W/O:		WORK ORDER CHANGES					
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Page 9

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3532-1 Manufactured No

250 Each

19.0000

2 2


Spacer



B61673 10/9/22 SF

Location

Loc Qty

Loc Code

ST068

19

60510

19

D3672-13 Purchased No

250 Each

828.0000

2 2


Phenolic Washer



10/9/22 SF

Location

Loc Qty

Loc Code

ST077

828

54363

828

MS21083C8 Purchased No

250 Each

30.0000

1 2


NUT



MISS594 10/9/22 SF

Location

Loc Qty

Loc Code

ST303

30

113845

7

114934

23

D2600-3-BENT Manufactured No

110 Each

9.0000

1 1


Extrusion Bent



Location

Loc Qty

Loc Code

LG

9

59410

9

D2744 Manufactured No

110 Each

27.0000

1 1


Cap



10-8-31

Location

Loc Qty

Loc Code

LG

27

59198

27

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Page 9

BE 10/9/01

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Page 10

Monday, August 30, 2010 11:24:55 AM

Work Order ID: 61570

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160

Each

2.0000

1 1



350 I Beam

Location

Loc Qty

Loc Code

LG

2

61256

2



DD 109-7

D2743

Manufactured No

160

Each

211.0000

8 8



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

211

50281

10

57953

2

59111

199



B BE 10/09/13

D3490-3

Manufactured No

160

Each

47.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

47

60294

10

61218

37



3 BE 10/09/13

D3490-1

Manufactured No

160

Each

85.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

85

59424

3

61217

82



4 BE 10/09/13

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W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1			D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- 1) MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- 2) FINISH:
ACID ETCH, ALONG ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- 8) WELD PER DART QSI 004
- 9) INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- 10) FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- 11) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- 12) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- 13) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

NO. 41570

B810-8-30

RELEASED

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (B PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS. CHANGE INSERTS: ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515HBL; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEC 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.16		
DART AEROSPACE USA, INC. PORT HADLOCK, WA			
DRAWING NO.		REV.	
D2750		F	
TITLE		SHEET 1 OF 1	
350 SKIDTUBE ASSEMBLY		SCALE	
		NTS	
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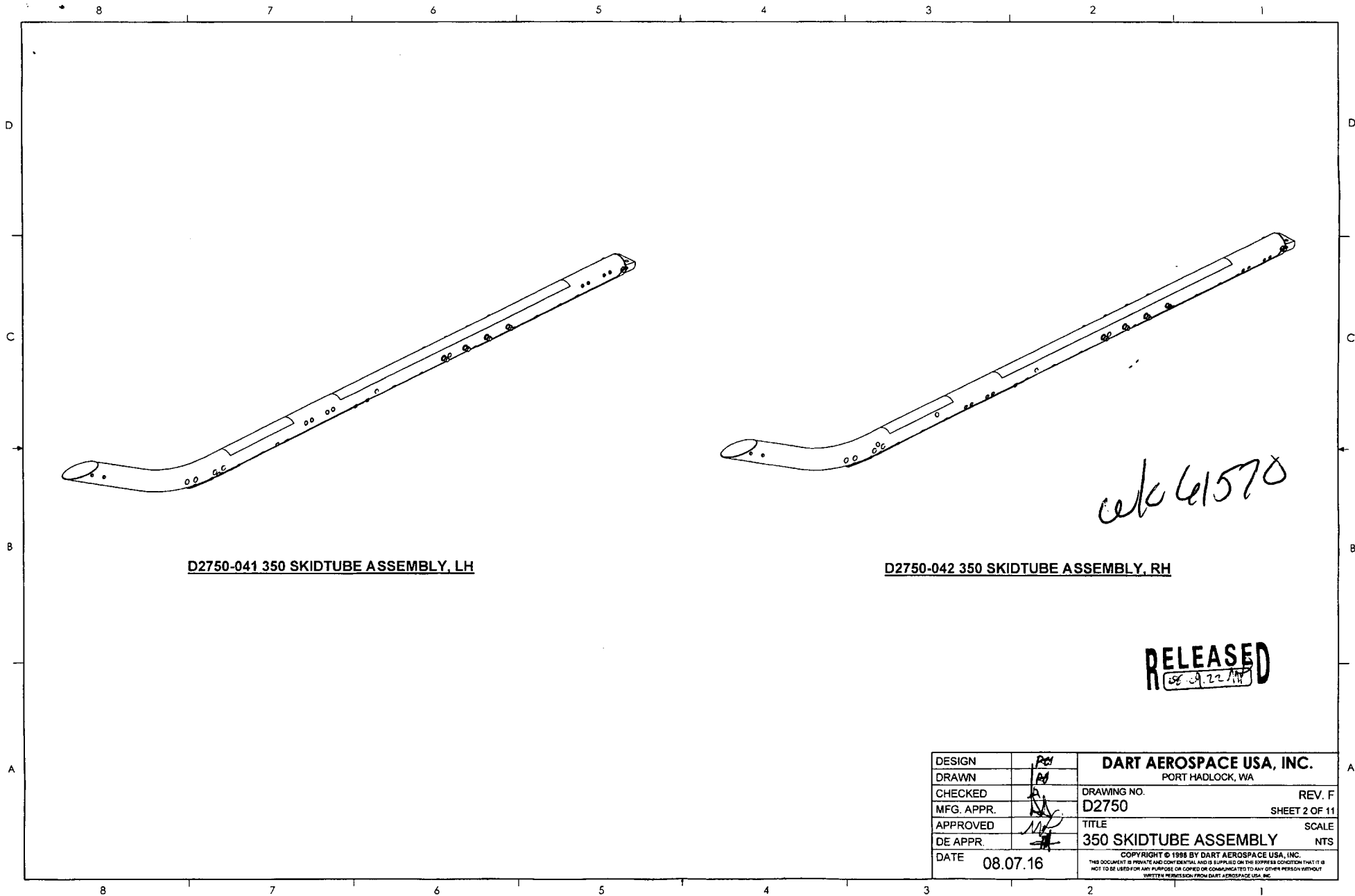
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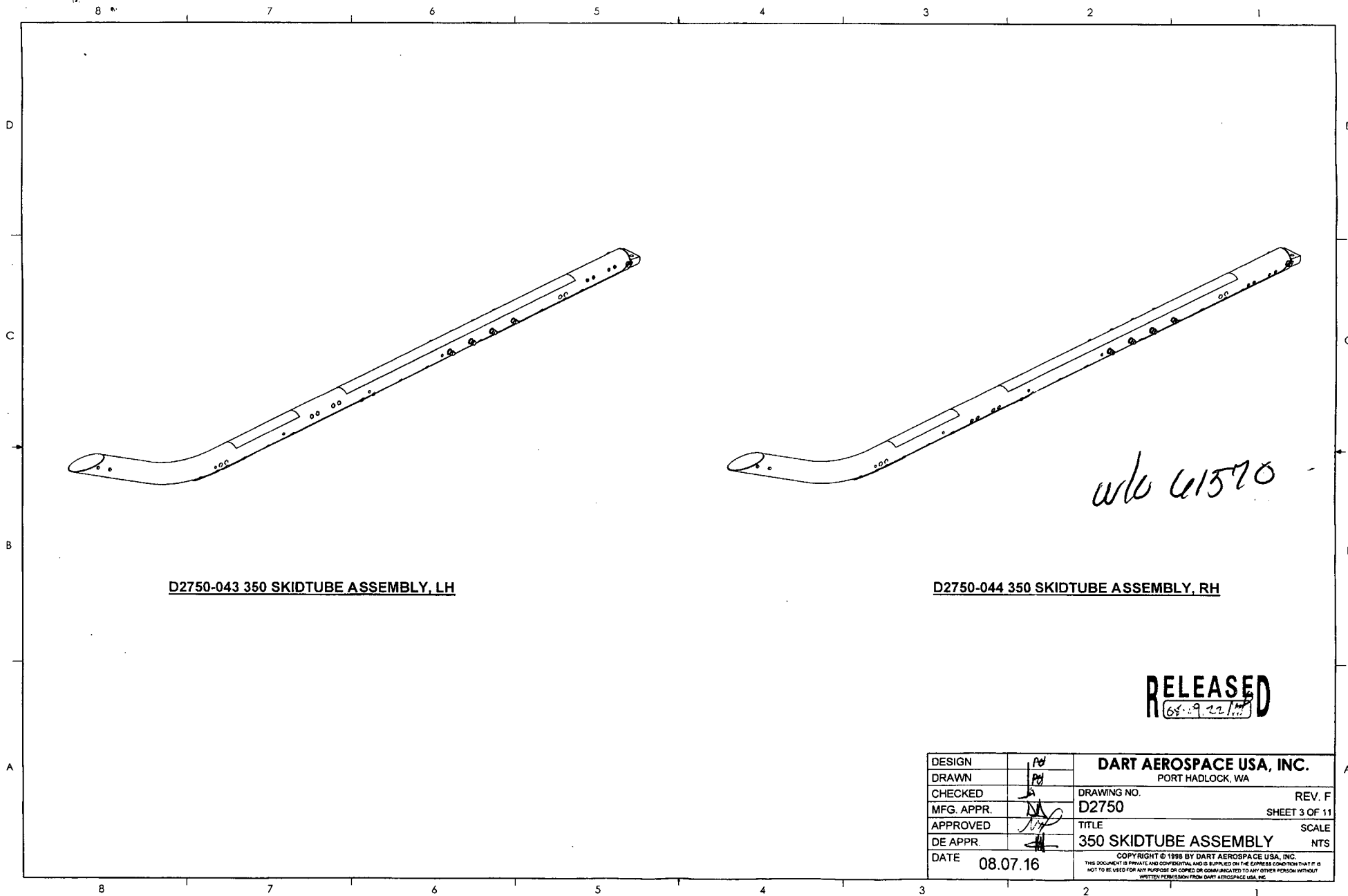
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



wlc 61570

RELEASED
68-9-22-1

DESIGN	PD	DART AEROSPACE USA, INC.	
DRAWN	PD	PORT HADLOCK, WA	
CHECKED	AP	DRAWING NO. D2750	REV. F
MFG. APPR.	AP	SHEET 3 OF 11	
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

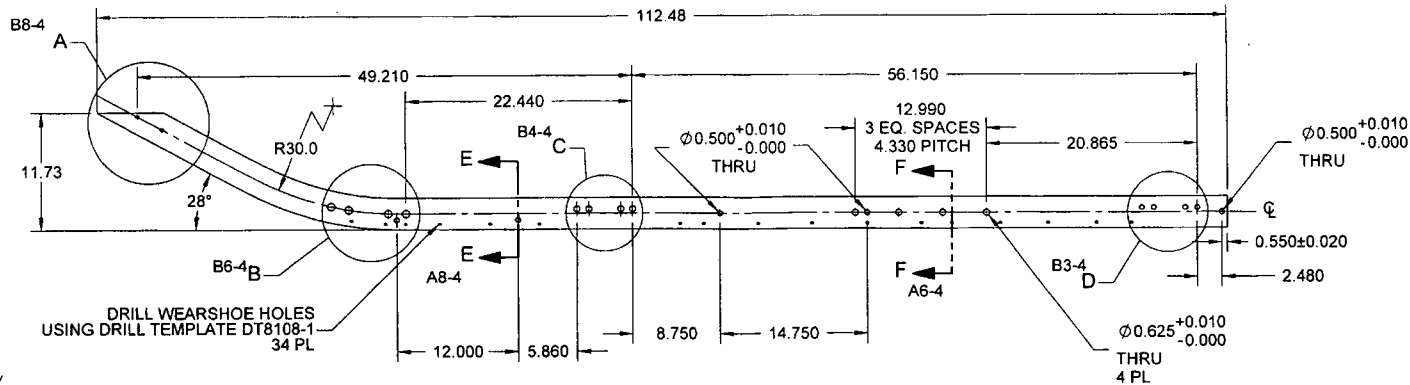
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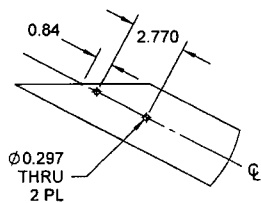
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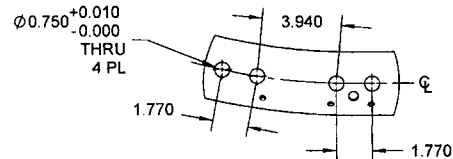
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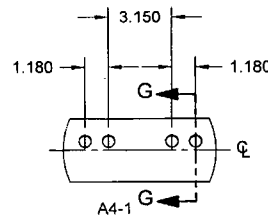
D2750-1 LH SKIDTUBE



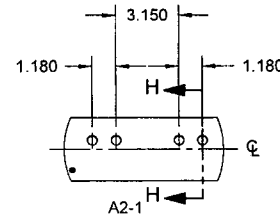
DETAIL A
SCALE 2X



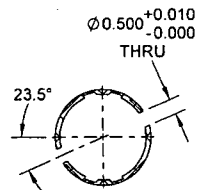
DETAIL B
SCALE 2X



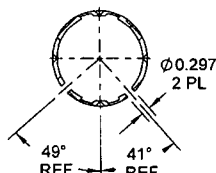
DETAIL C
SCALE 2X



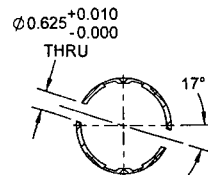
DETAIL D
SCALE 2X



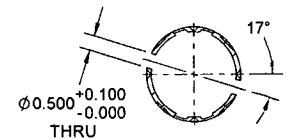
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

RELEASED

DESIGN	IPH	DART AEROSPACE USA, INC.	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	REV. F
MFG. APPR.		SHEET 4 OF 11	
APPROVED		TITLE 350 SKIDTUBE ASSEMBLY	SCALE
DE APPR.		NTS	
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W1061570

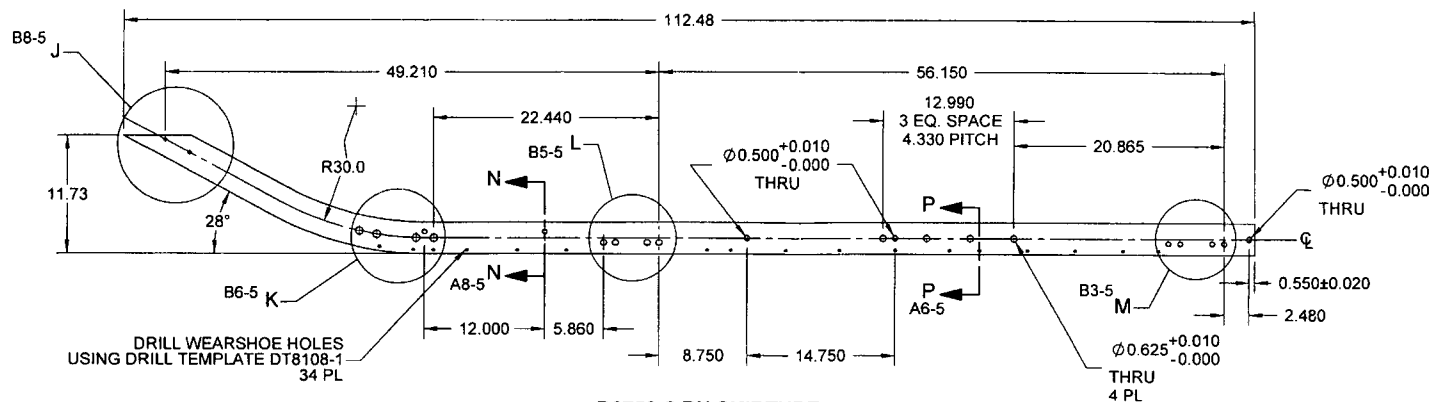
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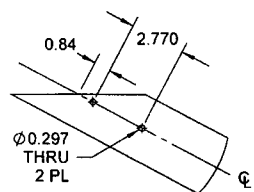
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

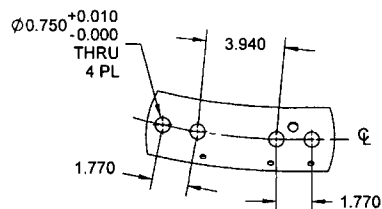
NOTE: Date & initial all entries



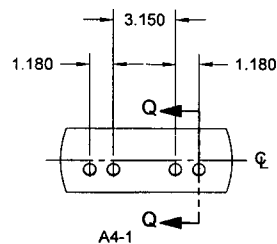
D2750-2 RH SKIDTUBE



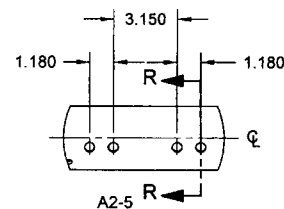
DETAIL J
SCALE 2X



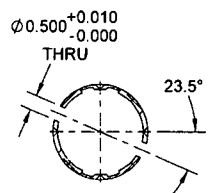
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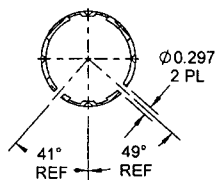
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SCALE 2X



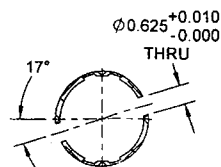
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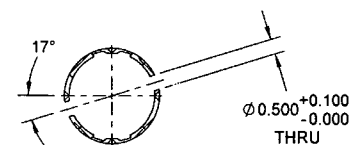
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

RELEASED

DESIGN	REV	DART AEROSPACE USA, INC.	
DRAWN	REV	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	REV. F
MFG. APPR.		TITLE 350 SKIDTUBE ASSEMBLY	SHEET 5 OF 11
APPROVED		SCALE	NTS
DE APPR.			
DATE	08.07.16		

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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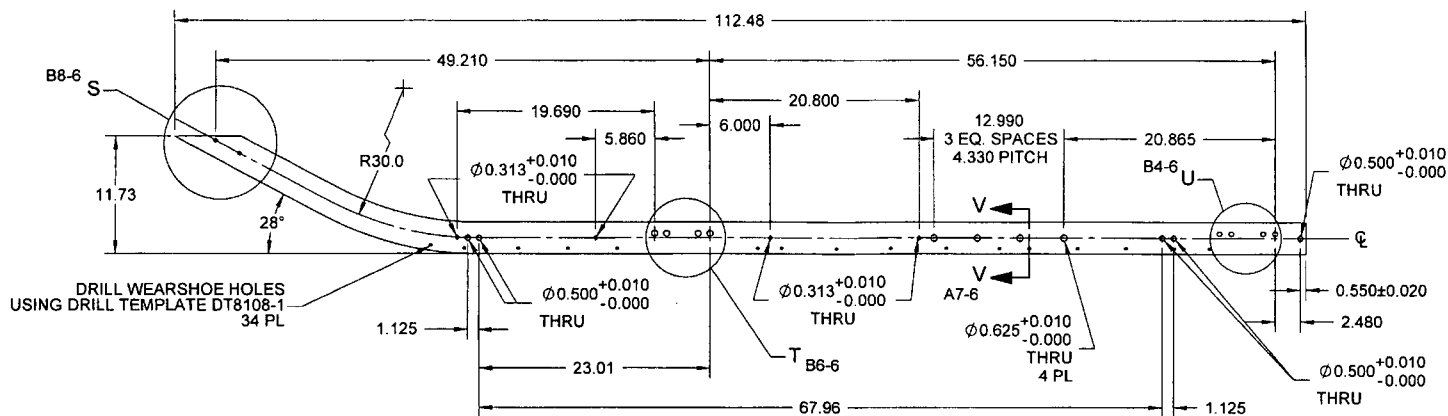
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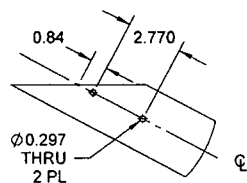
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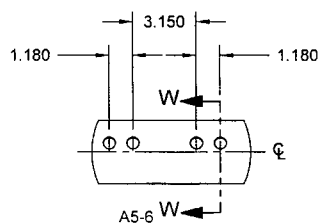
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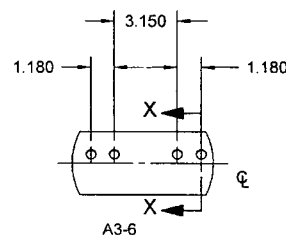
D2750-3 LH SKIDTUBE



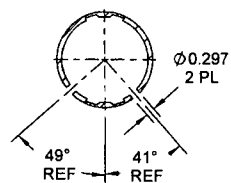
DETAIL S
SCALE 2X



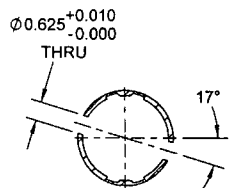
DETAIL T
SCALE 2X



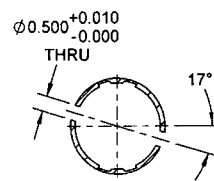
DETAIL U
SCALE 2X



SECTION V-V
SCALE 3X, 17 PL



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

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08 07 16

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 6 OF 11
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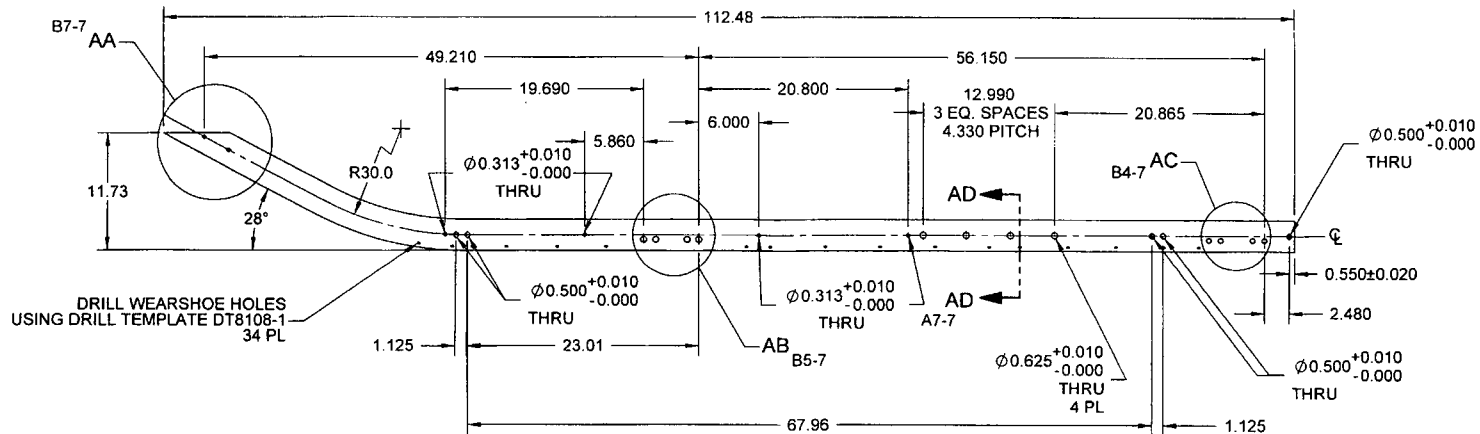
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

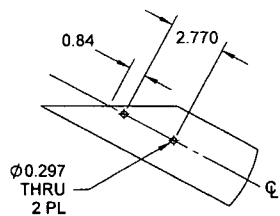
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

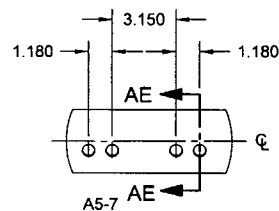
NOTE: Date & initial all entries



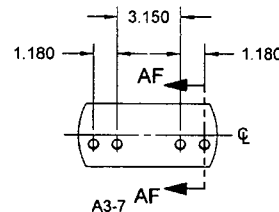
D2750-4 RH SKIDTUBE



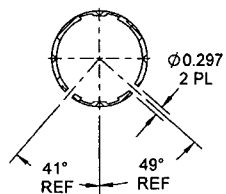
DETAIL AA
SCALE 2X



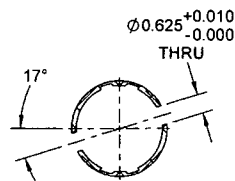
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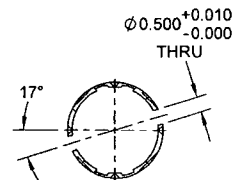
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

w/o 61570

RELEASED
06-09-22-107

DESIGN	<i>RF</i>	DART AEROSPACE USA, INC.	
DRAWN	<i>RF</i>	PORT HADLOCK, WA	
CHECKED	<i>RF</i>	DRAWING NO. D2750	REV. F
MFG. APPR.	<i>RF</i>	SHEET 7 OF 11	
APPROVED	<i>RF</i>	TITLE	SCALE
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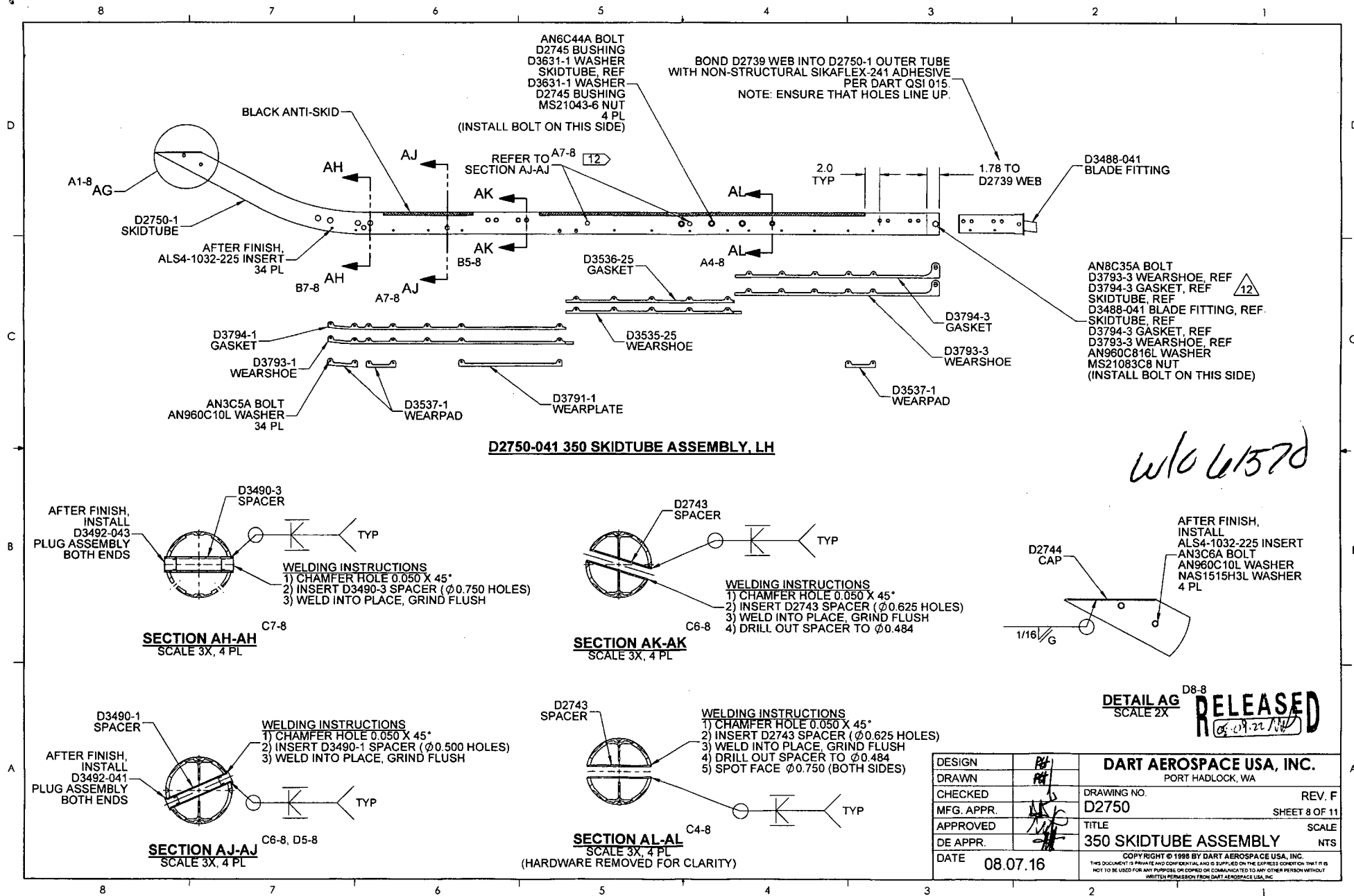
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



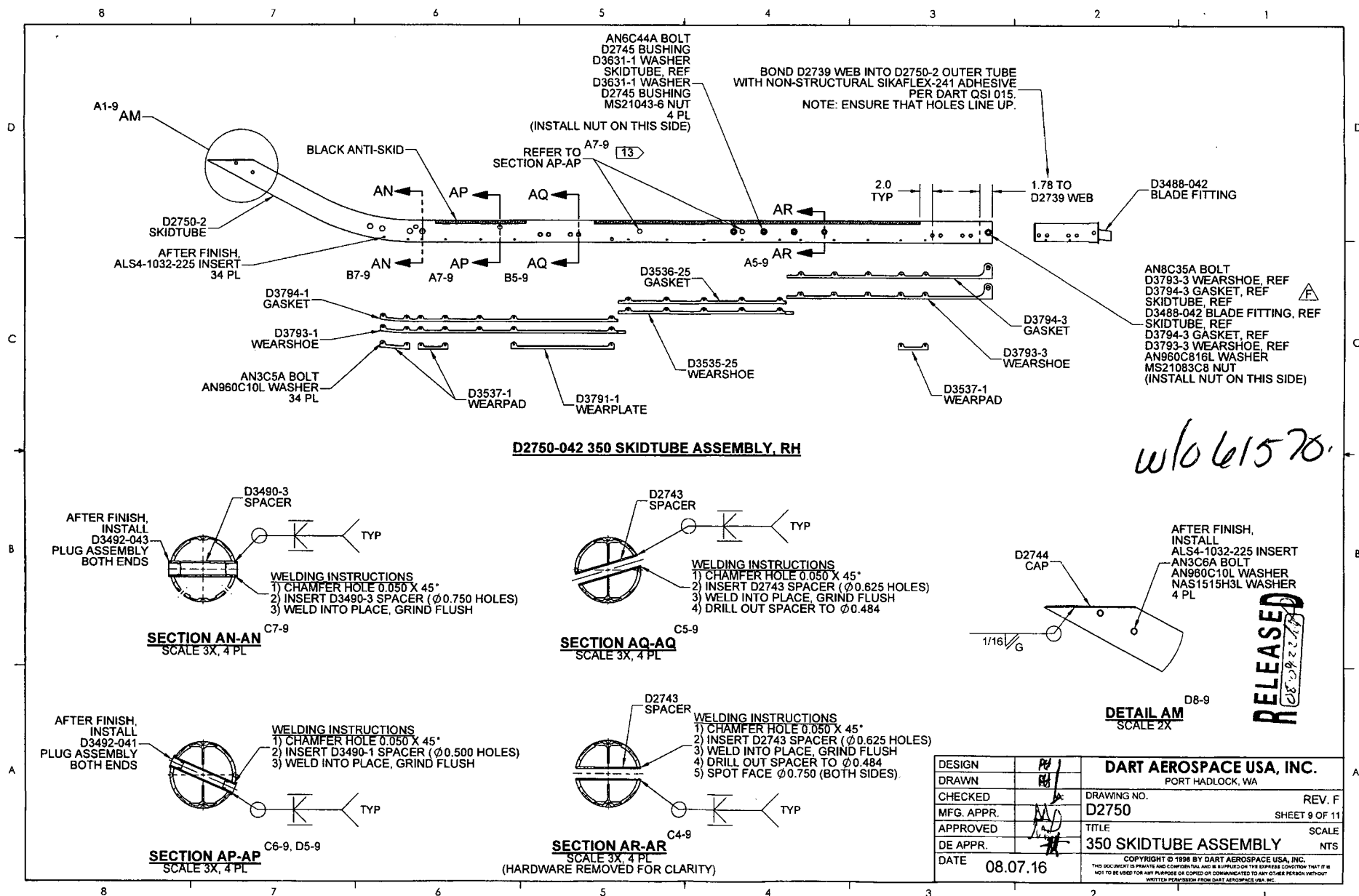
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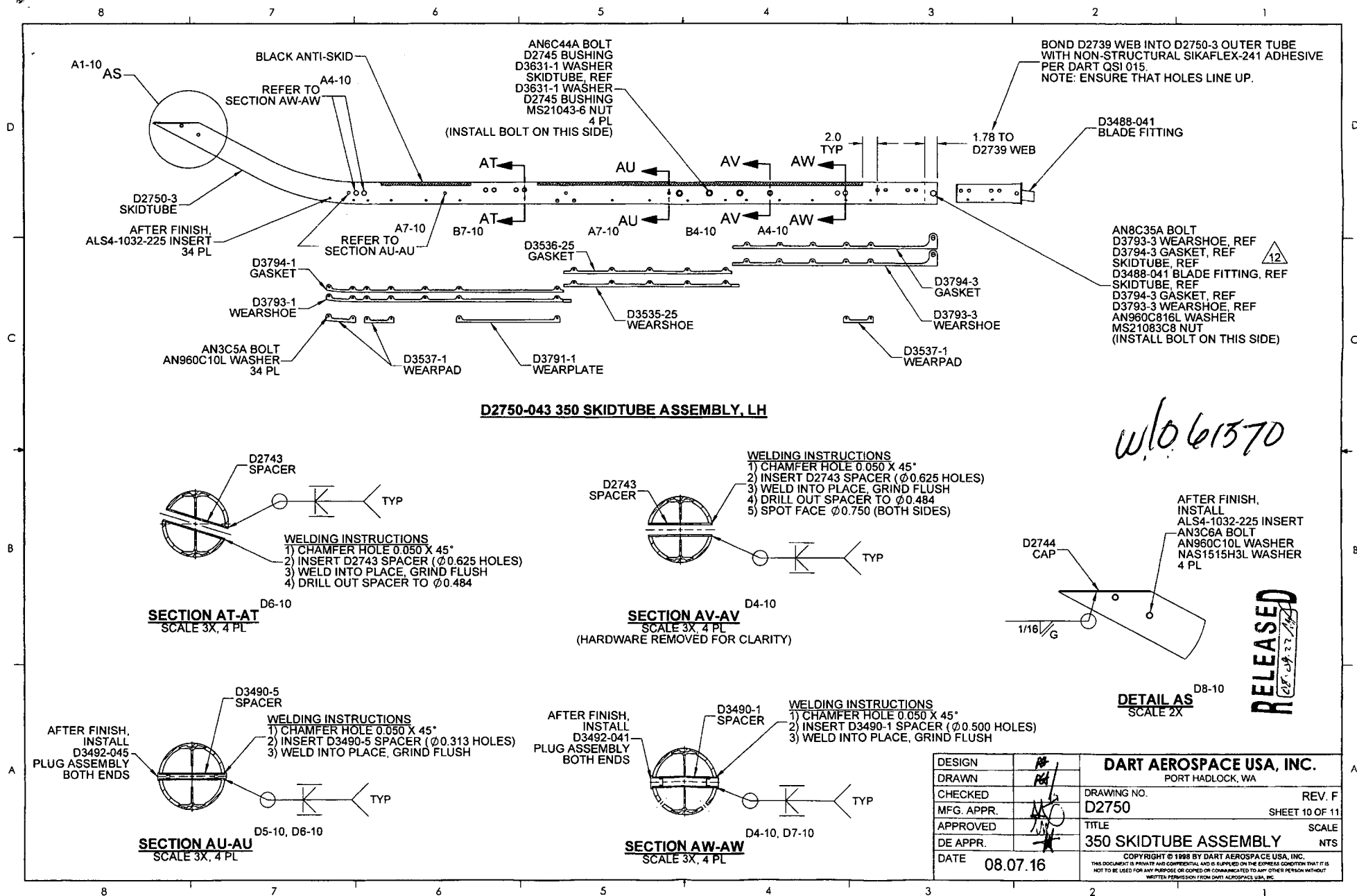
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DESIGN	AS	DART AEROSPACE USA, INC.	
DRAWN	AS	PORT HADLOCK, WA	
CHECKED	AS	DRAWING NO.	REV. F
MFG. APPR.	AS	D2750	SHEET 10 OF 11
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DE APPR.	AS	350 SKIDTUBE ASSEMBLY	NTS
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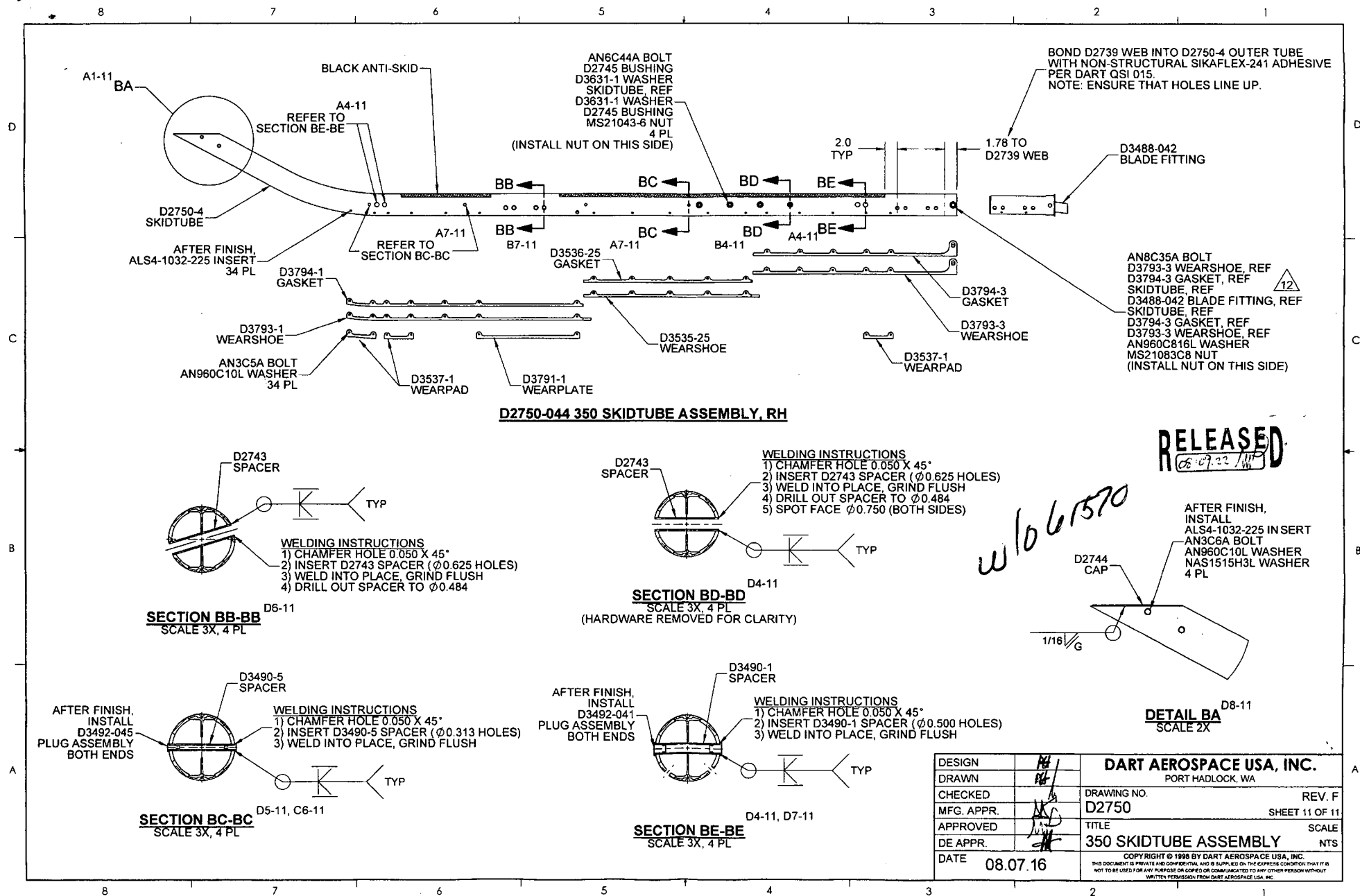
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 236

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 60988
Part number: D350-636-012
Description: 350 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier [Signature] Date of Test Coupon 10.08.12

Welder [Signature] Date of Test Coupon 10.08.12

The above named individual is qualified in accordance with AWS D17.1.2001 to weld